UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,062	01/04/2002	Stephen A. Milks	8416-000008	5754

7590 09/05/2007

W. R. Duke Taylor
Harness, Dickey & Pierce, P.L.C
P.O. Box 828
Bloomfield Hills, MI 48303

EXAMINER	
FREAY, CHARLES GRANT	

ART UNIT	PAPER NUMBER
3746	

MAIL DATE	DELIVERY MODE
09/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/038,062	MILKS, STEPHEN A.
	Examiner	Art Unit
	Charles G. Freay	3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,7-11,13-16 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10,11,13-16 and 19* is/are allowed.

6)☒ Claim(s) *1,5,7 and 8* is/are rejected.

7)☒ Claim(s) *9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the Request for Continued Examination of August 2, 2007 and the Amendment of July 5, 2007.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu in view of Fan-Tastic Vent Model 4000R brochure (herein after 4000R) and further in view of the applicant's earlier patent (USPN 4,633,769) (herein after ('769)) and also in view of Kottmann (USPN 3030145) and McAvena (USPN 5,095,612).

Chiu discloses the invention substantially as claimed including a self standing air circulation devise comprising a housing (12,14) having a front face portion (16), a rear face portion (17) and a main base portion (the four side walls 18, 19), the base having a motor and a fan blade. The air circulation devise is directed to a fan which can be selectively used as either a window fan or a free standing fan. As noted in the "Background of the invention" Chiu can be used in open windows and the design provides a safe and efficient means of mounting the fan in the window. Chiu does not

disclose that the motor is a low profile motor with a thickness of around one inch, that the motor is sealed against highly pressurized liquids and has bearings, that the motor is a 12 volt DC motor, that the device excluding the motor and associated casing is made of a polymeric material and that the housing has a thickness of about three inches. Chiu also does not disclose an electrical connection device coupled with said motor.

4000R discloses an air circulation device in the form of a 10 blade rotary fan that works with an open window (see col. 1 the second full paragraph), having a housing assembly with a motor and a fan blade (clearly shown in the figure). The motor is a 12 Volt sealed motor and the thickness of the assembly is 3.5 inches. 4000R does not specifically state that the motor is a thin low profile motor having a thickness of around 1 inch and that there are bearings. 4000R does make reference to the applicant's earlier Patent # 46333769. ('769) discloses a low profile motor (referred to as a disk motor 15). At col. 2 lines 45 thru 47 ('769) incorporates by reference U.S. Pat. No. 3,144,574 to Henry-Baudot. The Henry-Baudot reference, and thus the applicant's earlier patent ('769) by incorporation, discloses that the disk motor includes bearings (21, 21'). At col. 1 lines 60-64 ('769) notes that a reduced thickness assembly is desired. Further at col. 3 lines 23-25 ('769) notes that the "motor and fan blade require less than 2 ½ inches". Figure 2 of ('769) is included below and shows the view of the housing assembly, the motor and fan blade.

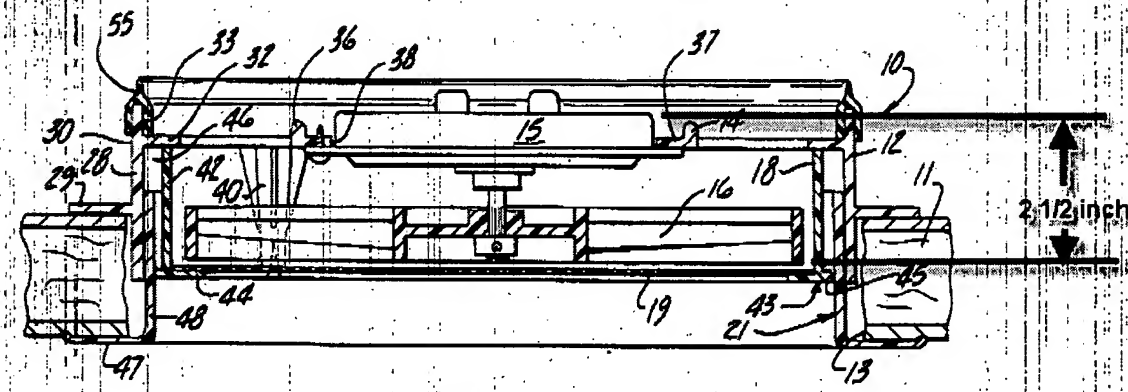

Fig -2

As shown above the disk motor (15) represents the low profile motor driving a fan blade (16), the housing assembly includes a base portion (18), a front face portion (32) and a rear face portion (43,44).

At the time of the invention it would have been obvious to one of ordinary skill in the art when considering possible motor and fan assemblies to place within the base portion of Chiu to consider the 4000R rotary fan for use in an open window which is designed to have a thin profile (3.5 inches).

At the time of the invention it further would have been obvious to one of ordinary skill in the art, when reviewing the 4000R brochure, to refer to the ('769) patent in view of the clear reference to this patent on the brochure. Further upon review of the ('769) patent, which clearly discloses an air circulation device of similar construction to 4000R, it would have been obvious to substitute or use the sealed low-profile motor as the drive devise for the fan as a well known reduced thickness motor. Additionally, it would have been obvious to one of ordinary skill in the art to make the motor of a thickness of "around 1 inch". As shown in Fig. 2 the motor and fan are around 2.5 inches and thus

the motor alone would have a greatly reduced thickness relative to 2.5 inches, on the order of "around 1 inch". The examiner notes that "it is well settled in the art that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art", In Re Aller, 105, USPQ 233 such that one of ordinary skill in the art would have been able to correctly size the thickness of the motor based on the power and space requirements of the 12 volt motor fitting within a reduced thickness. Similarly it would have been obvious to design the housing to have a thickness of about three inches (claim 19). As noted above 4000R has a thickness of about 3.5 inches. However that thickness includes the vent cap which would be unnecessary in the vertically oriented window or stand alone fan. Determining an optimum size, such as 3 inches, would have been obvious and within the skill level of one of ordinary skill in the art based upon safest and most efficient design for the window mounted fan of Chiu.

Kottmann discloses a fan or blower unit (35) used in a motor vehicle which has an electrical connector (38) capable of use with a socket in the motor vehicle.

At the time of the invention it also would have been obvious to one of ordinary skill in the art to use an electrical connector such as disclosed in Kottmann in order to provide electrical energy from a readily available source.

With regards to claim 1 the examiner notes that the sealed motor disclosed by 4000R and ('769) has the ability to perform the intended use limitation of the sealed motor "creating a liquid impermeable seal.. while preventing corrosion and damage" but does not set forth the amount or level of sealing which would be provided. McAvena

discloses a spring loaded seal (66) for use in high pressure environments such as where spraying occurs (Col. 1 lines 46-48). At the time of the invention it would have been obvious to one of ordinary skill in the art to use a seal such as taught by McAvena in order to create a durable and water proof electric motor..

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu in view of 4000R, ('769) and also in view of Kottmann as applied to claim 1 above, and further in view of Schmider (USPN 5,109,171).

As set forth above Chiu in view of 4000R, ('769) and also in view of Kottmann discloses the invention substantially as claimed. While each of Chiu, 400R and ('769) certainly discloses rigid casings none of them specifically state that the casing is "of a rigid, non-corrosive material...". The applicant at paragraph [0019] line 3 of the current specification sets forth that such a material is metal. Schmider discloses a disk motor of similar construction to the Henry-Baudot patent incorporated by reference in ('769). Schmider at col. 1 lines 12-14 state that such disk motors are routinely enclosed by sheet metal. At the time of the invention it would have been obvious to use sheet metal as a well known and relatively cheap rigid and non-corrosive material for a motor housing.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu in view of 4000R, ('769) and also in view of Kottmann and McAvena as applied to claim 1 above, and further in view of Schmider (USPN 5,109,171).

As set forth above Chiu in view of 4000R, ('769) and also in view of Kottmann and McAvena discloses the invention substantially as claimed. While each of Chiu, 400R and ('769) certainly discloses rigid casings none of them specifically state that the casing is "of a rigid, non-corrosive material...". The applicant at paragraph [0019] line 3 of the current specification sets forth that such a material is metal. Schmider discloses a disk motor of similar construction to the Henry-Baudot patent incorporated by reference in ('769). Schmider at col. 1 lines 12-14 state that such disk motors are routinely enclosed by sheet metal. At the time of the invention it would have been obvious to use sheet metal as a well known and relatively cheap rigid and non-corrosive material for a motor housing.

Allowable Subject Matter

Claims 10, 11, 13-16 and 19 are allowed.

Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims s 1, 7 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Barker et al discloses a high pressure seal for use in an electric motor. Schnyder discloses an electric motor made water and moisture resistant and notes that motors may be cleaned by a water spray (col. 1 lines 16-17).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G. Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Charles G Freay
Primary Examiner
Art Unit 3746

CGF
August 27, 2007